



**Graham Allan**  
*Director of Marketing*



# About MOSAID



- Founded in 1975
  - Over 30 years experience in memories, memory interface technology and system timing
- Global leader in Semiconductor IP and IP Patent Licensing
  - Key Semiconductor IP products include Integer and Fractional PLLs, and high-performance DDR SDRAM Interface solutions
- Corporate Headquarters in Ottawa, Canada
  - Semiconductor IP Division in Santa Clara CA
  - Sales offices in Tokyo, Shanghai, and the UK



# MOSAID IP Products – Served Markets

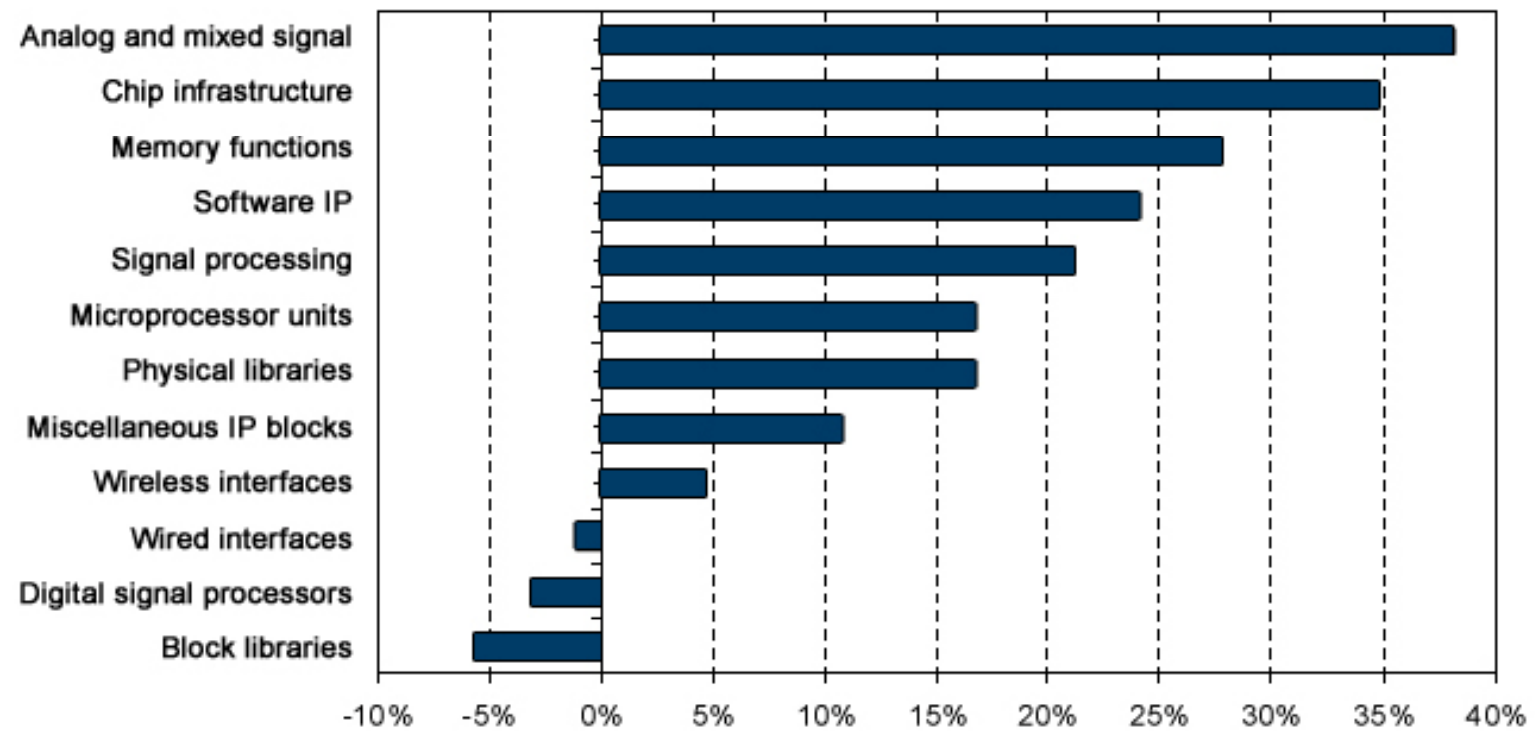


Semiconductor IP market forecast to grow at 23% in 2006

Analog and mixed-signal market (including PHY IP) grew by 29% in 2005 to account for 10% of total Semiconductor IP revenues



Figure 2. Semiconductor IP revenue Growth by Product Category, Worldwide, 2005



Source: Gartner Dataquest (May 2006)

# MOSAID Fractional/Integer PLL IP



## Industry's most flexible PLL IP

- Fractional or integer option
- Generates any clock frequency from any crystal
- Output clock range: 88KHz – 3.2GHz
- Silicon proven

## Low jitter

- Cycle to cycle <0.2% VCO clock, min 2ps

## Low silicon area

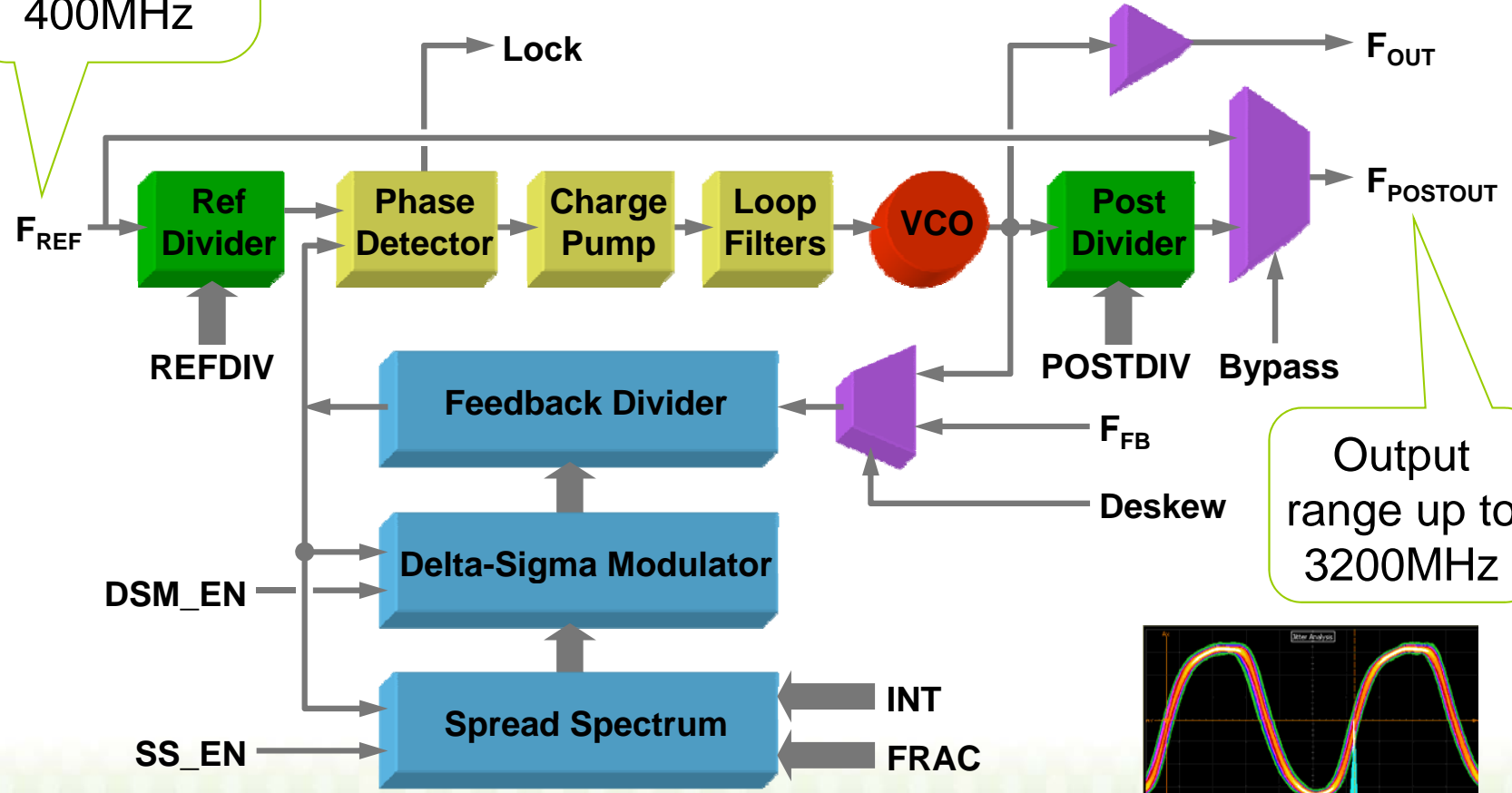
- 4 I/O slots, 0.044mm<sup>2</sup> typical
- Also can be placed in the core

## Low power

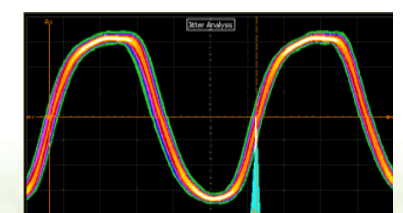
- 1mW@400MHz, typical

Available in TSMC 65, 80, 90 & 130nm processes

Input range from 1.0MHz to 400MHz



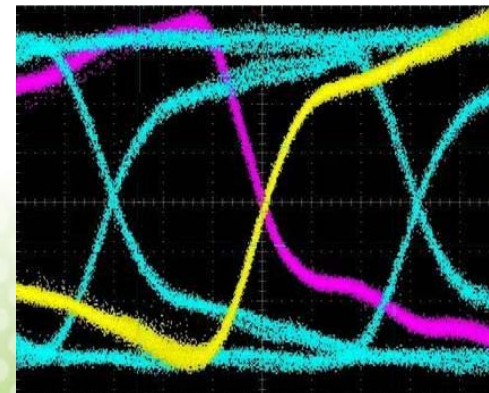
Output range up to 3200MHz



# MOSAID DDR SDRAM Interface IP



- Industry's *highest performance* DDR IP
  - Up to **1066 Mbps** for DDR2
- Offered as components, hard PHY or PHY + controller
  - Silicon-proven and configurable
- Preferred IP for video, media and network processing applications
- Available in TSMC 65, 90 & 130nm and UMC 90 & 130nm processes
- PHY compiler introduced for customer flexibility and faster TTM



# The Future of IP



- “Reusable intellectual property (IP) is crucial if chip makers are to capitalize on the high degree of device integration allowed by modern production processes. Demand for this kind of IP will grow”



Jim Tully  
Gartner  
July 2006 Report

# Thank you!



- Please stay and talk with Graham
- Explore MOSAID IP at [ChipEstimate.com](http://ChipEstimate.com)
- Use MOSAID IP to Plan a Chip at DAC (get a DAC Trip Report!)

